Genetic algorithms can often make things 30 to 2 to 3 times better; To my perception the body is already filled with networked systems and perhaps it is possible to remove all or most epigenetics at something like yeast or zebrafish, then that would leave rapid opportunity for stochastisticaly reintroduced saved data as well as of course breed billions of new yeast to find out if this techquenique which is strongly supported at google scholar can create longevevity increases, If it works at yeast they can try it at zebrafish

There is a single gene difference between caucasian and non caucasians, wikipedia says, "In 1999, the *nacre* mutation was identified in the zebrafish ortholog of the mammalian *MITF* transcription factor.

[73] Mutations in human *MITF* result in

eye defects and loss of pigment, a type of Waardenburg Syndrome. In December 2005, a study of the golden strain identified the gene responsible for its unusual pigmentation as SLC24A5, a solute carrier that appeared to be required for melanin production, and confirmed its function with a Morpholino knockdown. The orthologous gene was then characterized in humans and a one base pair difference was found to strongly segregate fair-skinned **Europeans and dark-skinned** Africans.[74]

Zebrafish"https://en.wikipedia.org/wiki/Zebrafish#Scientific_research
Utilizing that single base pair
difference and making the caucasian
version part of the germline of all
mammals, including all homo
sapiens, humans, people and
persons is beneficial germline

genetic engineering.

There is a wonderful idea of better than well.
What might this look like at neurodevelopment; I read about neural crest development at wikipeida, so what would better than well look look like there?

measuring things causes the possibility of optimal knowledge isolates (comical I'm reminded of the phrease why protein isolate) and highly forgiving traversed or iterated or the actual neural crest pathways math and chemistry, at completely well neural crest development biology mauses can guide minds to recognition of valued paths and bruit about optima, although I think true optima are possible.

It is very ignorant of of me, but I saw

a thing where Bell's inequality could be expressed with three polarizers, I am reminded of how water surfaces polarize light and a person could make a pleasant water feature (undulating or laminar) with mirors in the right places so that the Bell's inequality polarization overlap environment is continuously updated and refreshed, perhaps with enough of these to look at, and a sufficient number of physics enthusiasts looking at them a person will think of something new to say about about Bell's inequality

Its Novemember 2020, and some people are getting nasal swab tests

eugenol or lidocaine, nanosomal with piezoelectric element driven penetration of the anesthetic; alibaba .1c to 1c piezoelement and half cent battery make this affordable.

snort microspheres, they puff up in the nose, and diffuse an enjoyable flavor (sucralose) simultaneous with absorbing a sample of fluid. Then do single nostril nose blow to gather sample, if snortatant colorant has made saliva colored then expectorate in tube as a replacement for a nose swab.

does the: gentle q tip in the ear pleasant sensation have anything comparable to the least-pressure but sufficient to gather a nasal swab sample?, that is, is there a nasal swab experieinece of extreme gentleness and vary narrow pressure range that actually feels good to neutral? Completely unknown to me.

Craigslist activity partner: let's hang out! I'm unconcenred about your covid-19 tatus but am happy to use one of the free testing options so you can verfiy I'm harmless.

Reading about automated and human in-the-loop helpdesk automation software, I read "Many calls to the IT help desk originate from users who just want to know what directory to save work in and which printer is the closest to them" There are software based solutions which might well be better, but

the cheapest (11/2020) GPS chip on alibaba is 20 cents, so printers, such as office printers could simply have a 9 cent version of that chip producing True 3D location that people could seek out when choosing a printer.

What to call a file and where to store it: with the cloud, parallel storage, or the impression of that, of

one identical file at 20-100 differently labelled directories makes it so the computer can store a new file in a location that would make most sense for a computer to store a new file in like "documents" for a Microsoft office document; As a sloppy, untutored, or heavily rewarded human I might save it to the desktop; with cloud computing, or

even just version synchronization off-net and HDD, clicking "save" which then alerts people to the fact that their document has been saved three or more ways: to the desktop, at the documents file folder, and as a long-abstractlength titled file, reminiscent of a search engine search result, called a Bing it up at Microsoft environments.

So you click save, or it autosaves these three versions, at least 1-3 of them will be be mentally easy to find and remember, or importantly, spot, with human recognition memory.

Looks like game of life

glider gun :

placenta vessels based heart lung machine, notbably keep lab mammals and humans alive as long as possible, then map things that go amiss during first 400 years of sustained living

royal jelly does HDAC epignenetics, neutral version as well as inverse of royal jelly epigenenti

change could be tested as to any effect on longevity, if there is none then royal jelly longevizes without an epigenentic componenent. If there is a longevization epigenetic component to royal jelly at mammals, like mouse study, then the Even Moreso variation with hyperacetylation/Hypoac etylation/hyper and

hypomethylation varieties of the beneficial epigenetics tried

I was reading about treatments from calcified coronary arteries. My perception is that I read among many procedures, those that involve grafts sometimes have the grafts themeselves calcify, causing nonoptimal effects, It seems possible that a

soak up the crummy stuff vascular loop could be installed and then if it soaks up 90% of the circulating recalcifiers at the cicrulatory system then perhaps the heart vasculature might only do 10% as much recalcification, contributing to wellness and durable effectiveness of procedure, very crudely, it is possible to imagine a meter long

extra loop of circulatory pathway tube used to absorb some of the "calcify" instruction chemicals, perhaps the GI tract vasculature could host the extra meter of tissue culture vessel length, and, perhaps be minimally invasive to swap out periodically;

I have previously written about ways to reduce diminuation of efficacy of

drugs, on their repeated dosing, possibly including analgesic or also anesthetic drugs.

The internet says things that suggest a cure for low back pain would be of major benefit, "In both 1990 and 2013, the leading causes of ill health worldwide were: Low back pain, depression, irondeficiency anemia, neck

pain and age-related hearing loss."

I noticed once when my back hurt that if I went to sleep it was likely to feel much better and be cured the next day on waking up. So, could they isolate that "it (back pain) fixes itself while alseep" to some brain sleep stage or pattern (EEG, REM, etc) then make a harmless

nonhabituating Instant nap technology that lasts 3-7 minutes to create a restorative mini-nap that gets rid of back pain. Some possibilitities that come to mind are Nanosomal instant sleep ambien nasal spray+REM inducer, or perhaps Slowwave sleep (delta sleep peptide) peptide + "3 minute knockout from asthma whiffer". The idea is that you get

instant sleep, of the particular kind that causes recovery from back pain if there were an entire nap.

It might be too weak an effect, but playing back EEGs causes the brain to synchronize around they played-back waveforms; an EEG head playback circlet plus an instant nap chemical could do that.

Another possibility might be TMS (transcranial magnetic stimulation) that does either instant nap/nod off plus an optimal to back recovery sleep mimetic peptide.

If there is a messenger RNA profile of narcolepsy then that could be made into an RNA drug that causes instant sleep, again with the purpose of an instant micronap

solving lower back pain just like a real nap.

The TMS focalization that causes P-zombie effects thing I saw published. could be another thing to switch on for 20-40 seconds to see if a Pzombie nap cures lower back pain, particulalrly, as like the other technologies, when combined with an EEG drug, or perhaps better, a drug that causes the EEG-like waves of a normal well back/spine. sort of like an electrospinalogram.

Botox may be effective against small back pain, the internet says, "Botulinum toxin A has been tried as a treatment for chronic low back pain. Although this practice is experimental and not well tested, it has shown

promise. For example, in one small study of 31 people with chronic low back pain, botulinum A injection was compared to saline injection into painful back muscles. Pain relief was reported by most people as lasting 3 to 4 months." That brings up the possibility of an ultraffordable topical cofocalized laser activated version of botox for back pain. The

person applies the drug delivery (nanosomal, DMSOish, many others) topical botox, which is then only activated with light at tissue depth from a light emitting patch. As a technology the person with back pain would just get the ointment and photoactivating LED patch as a product at the grocery store. The botox could be photoactivated with a wide variety of

published technologies, and a porphyrin moiety attached to the botox protein is just one of many numerous possible technological approaches.

The internet says there is a working topically applied specific area muscle pain ointment, I do not know how this works, but that localization through

ointment rub-in location suggests that a lower back or other back areas topically migratory and effective photoactivated botox could also be effective. This could be a very affordable solution to back pain. The actual picograms of botulism toxin per dose is very affordable, and the \$1 store has a 4 LED elastic toy wearable product. On alibaba that is likely

5-9 cents for the light emitting elastic wearable, and 1 cent or less for the photoctivateable (porphyrin) botox

I thought it could be beneficial to think of treatments, cures, and preventatives for heart disease, includinging atherosclerosis and heart attacks.

Hearts with less

regularity and more chaotic attractor aspect are published as being healthier. That is the high variability chaotic attractor heart is weller longer. It might be possible to create a pill that nudges a heart to prefer the strange attractor math region. big pill with lots of little pills in it it, each of which contained stochastic 1-.05 Hz dosing of

something that harmlessly effected cardiovascular things (vasodilators, vasoconctrictors, stimulants, stochastic hawthorne active ingredients) such that there was a beneath the threshold of personal awareness chaotic nudge once every 1-5 seconds, this could causes an unwell heart to switch to a chaotic attractor

program many many times each day, then they could measure to see if this reduced illnesss.

Perhaps the micro moment CA (chaotic attractor) pill with bodyside only of the blood brain barrier active ingredients causes similar effect, completely excluding the nudges to chaotic attractor mode from having brain

(feelable) effects.

It is possible that as a solution to menstrual cramping, or cramping with an IUD contraceptive, that a transcervical implant or IUD could have botox as a diffusive ingredient, which could be measured to see that it gets rid of menstrual cramping.

Wikipedia says 60% of

people are absent ever experiencing low back pain, monozygotic twin studies could find the genetic basis of complete immunity to lower back pain, it is beneficial to make complete immunity to back pain a part of the germline of homo sapiens, that is humans, that is people.

somewhat analogous to changing the location of a needleless epidural anesthetic procedure 1.5 cm to a new location everyday for a month would keep any one location from from wearing out while still providing blockage of backache

Wikipedia notes that most people rapidly recover from small back

pain, this brings up the possibility of geneticially isolating the equivalent of small back pain in agricultural animals, then breeding/engineering groups that recover from the veterinary equivalent of small back pain in 5% the median amount of time. The most parsimonious genetics of rapid recovery can be traced to particular genes and mRNA, then

mRNA drugs based on that can be generated then tested to see if they make recovery much more rapid at median responder verterinary animals to see if these could also be RNA drugs that relieve human back pain with high rapidity.

longevity technology research area, online it says, "a hibernating groundhog's heart beats

just five times" [a minute], they could raise groundhogs in an environment where they hibernate 90% of the time time and another 0-10% of the time, then they could see if the long hibernating groundhogs had markedly longer lifespans than the 0-10% hibernating groundhogs. If they do, then groundhog (rodent) similarity to mice could

be used to engineer a 90% hibernating mouse from groundhog genes and then the mice characterized as to why they were living much longer hibernating 90% of the time. Messenger RNA profiles (of eiher groundhogs immediately or 90% hibernator longevized mice) could be used to make RNA drugs to test to see if they make non-

hibernating mice live longer and the RNA drugs, if any, that cause mice to live longer are then tested on age batched groups of marmosets (primates) to find out if this is a n RNA longevity drug that benefits primates; if it does it can be tested on age batched groups of human volunteers to see if it causes greater human longevity absent

any effects deleterious to humans.

If groundhogs that hibernate 90% of the time live notably longer than groundhogs that only hibernate 0-10% of the time then they could also do a connected circulatory system parabiosis procedure linking a 90% hibernating groundhog to a 0-10% hibernating groundhog.

If the 0-10% groundhog lives noticeably longer then they can find new chemicals (proteins, peptides) at the shared circulation that cause greater longevity and possibly wellness. Although several longevity parabioisis chemicals are published, this could be a completely new type, and be made into a human longevity drug.

What does it mean to actual things when a math system is particularly attracted to a 4th spatial or chronolological dimension? distribution outliers are favored perhaps, or just possibly poission distributions spontaneoueously make themselves prominent (sort of become a most

frequently found vertice), if delayed quantum choice eraser retrocausality is true, what would combining its math and physics with a 4D time attractor math, and actual physical embodiminent do? The internet says, "These chaotic states are bounded by paths that form attractors, where the specific path is determined by initial

conditions, much like the oscillation of a pendulum. However, whereas the damped pendulum attractor is a single point (the lowest point), attractors of nonlinear dynamical systems do not converge to a single dimensional point, but to a different dimension in three-dimensional space - a fractal dimension. Attractors

that have a fractal dimension are known as 'strange attractors', so basically what if you just upped the math to make 4D starnge attractors, after you then know what they might look like from the equations you can look for them in nauture or build them. Finding 4D starnge attractors in naure could find many new phenomena. at measured systems, these

might look like data that has a strong, not otherwise obviously sourced avoidance of regression to the mean and normal distributions. This could look like a distribution with a much higher amount of outliers. If a 4D strange attractor is prior knowledge about a system then perhaps it becomes (bayesian)

This one is kind of unlikely but they could do longevity (and wellness) mammal parabiosis math studies, where all the actual measureds are used to come up with a stack of little math models that, among other things, describe the math of the benefitting connected partner. those specific little maths could be used to design new drugs with. Let's say at

parabiosis the cardiostrange attractor of the benefitting mammal becomes more fractally variable, previously published as cardiobeneficial; or perhaps the benifittor becomes more circadian responsive (even in the absence of melatonin)

detect angina before it is ever felt

EDTA solution as keep alive solution for postvehicular accident hearts, measure calcification at 30, 60, 90,120, 300, 365 days prior to transplant to see if chelation actually does anything beneficial to cardiac tissue; the internet

A variety of lab mammals are used to model human atherosclerosis (2020), it

is possible a longevity treatment published as causing greater, for example, rodent longevity grants the rodent models sufficient extended lifespan to better model atherosclerosis. So, if centrophenoxine is causing rodents to live 30-50% longer then they have that much more lifespan to develop atherosclerosis, and then

can be used to develop new antiatherosclerotic drugs. Deprenyl at 24% greater longevity may also be beneficial, as could genetically modifying rodents to make more GDF-11 protein (I think I read female mice that overexpress GDF-11 live 47% longer). The combination of a longevity drug with a wider new area of testing out antiatherosclerosis drugs and gene therapies could be a beneficial new research protocol.

A kind of sideways approach to a new antidepressant and possibly antiatherosclerotic is, noticing that stress causes macrophage activity that causes plaque build up and rupture, do something

with the immune system that reduces, but to within normal range, macrophage activity; I may have read that when antigens are placed in some kind of phospholipid packaging or moietyization, that the person actually becomes less allergic to something they were previously sensistized to. If they made a pie chart of all the the things a normal

person, as a well as an atherosclerotic person, as well as a depressed person are immunoreactive to then compare these three, to make a subset list, that provides a briefer list of things to do a possible immunopassivation therapy about, to decrease atherosclerotic reactivity, and also reduce the atherosclerotic stress

from mental nonoptimality (stressy personality; depression).

Using a genetic alorithm to develop immunopassivation molecules and moieties; Note 100-1000 endogenous immunoreactive chemicals, then do a a kind of combinatorial phospholipid where the potential passivating

moiety is a single variant on 1000 versions, such as length, liposomal anti-innumunogen passivation.

The internet has numerous immunopassivation and antigen desensitization drugs and protocols online.

immunopassivation (phospholipid moiety) of

toxoplasmosis gondii antibodies could have mental health benefits (reference: the connection between cats and mental illness), reducing nonoptimal mental effects of toxoplasmosis gondii.

Shift (night) work is associated with less optimal health and possibly even nonoptimal longevity effects. It is

possible using monozygotic twin human volunteers that that one could simulate shift (night) work, and the the other could continue day based activities. Immunoreactivity profiles of the two styles could be made, and then if there are any differences in the specific things new antibodies are made to either day/night then

they could test an

immunization to either mop up the deleterious shift work chemicals at the circulatory system, or immunopassivate (phospholipid moiety) existing antigens. Noting these shift-work chemicals are deleterious, it could be that even among day active persons immunizing against them, noting they may already circulate as a

baseline, provides additional health and wellness benefit possibly a better than well effect.

As a new drug delivery method I have not ever previously heard of an injectable (airjectable) fluid or gel at the sublingual area. Advantages are much hight non-metabolized absorption, and the 1-12 month durability of a gel

depot. Peptide drugs could beneficit from this.

lodine sufficiency one dose treatment could be bellybutton depot airjection anywhere. about 1/10,000th of a gram is dialy iodine sufficiency, so a one gram depot injection could supply 3 decades of iodine, or being more engineering friendly, a 1/2 medium depot

injection covinging 67% of USRDI sufficiency could provide two decades of iodine sufficiency;

The possible structural variations on phospholipids is likely more than trillions, notably at the phospholipids that have already been researched some are actually good

for people (phopshatidylderine), Using yeast and microfluidics to mass screen phospholipids to find those that are even more beneficial to people is I think possible; as previviously described GFP yeast can accumulate more GFP the longer they live, and flow cytometry can then find the most optimal (greatest longevity) yeast treatments at about 10 million yeast screened per minute. During 2012 1 million or more c elegans could be flow cytometry sorted per 24 hours.

endolith phospholipids, rapamycin phospholipids, totoise phospholipids

comparative robustness of pubertal sperm and eggs cytes compared

with supercentnerarian sperm and eggs; the difference between the two could have some kind of preervative factors;

stagnant water that is not stagnant, there are things called micyrhizzial communities where biotic communities have durable beneficial effect. I was thinkinging that

ponds could have the same thing, human slecected microorganism mixtures that make the wateter safer to drink if a mammal drinks it. optimally people would treat their water first before drinking, but a 1/100 of crummy stuff precluded could make water treatment require 1/100 the infrastructure, making it 100 times cheaper (sort of; piping

pumps) to treat. a green algae genetically engineered to glom what would otherwise be an essential nutrient for a pathogenic bacteria, perhaps lactoferrin made at algae or duckweek could preferentially utilize iron, keeping other bacteria from growing. risk of eutrophication, and staged ponds, (optimized pond scum ecology makes

pondwater 1/10-1/100 as risky as it would otherwise be

shaker flashlight ice cream churn, ph swing

cox 2 immunization
might make everything
less achey and fervid,
thinking of both milk
cows and all mammals,
"Mastitis has cost
American dairy industries
an estimated \$1.5 to 2

billion per year in treating dairy cows (wikipedia)" It is possible an immunization to cycloxegenase II and I enzymes could reduce mastitis, making the lives of dairy cowsmore enjoyable. At humans, with safety testing, lifetime immunization against cyclooxygenase I and II could reduce incidence of cancr as well as reduce any joint achey

or feverish symptoms throughout the lifetime. thought the lifespan. crispy duckweed naPCA some fungi are deliquescent, purification of those chemicals, dependent on positive flavor, could be made a part of duckweed, and possibly be more deliquescent than NaPCA. selective breeding for most deliquescent edible gene product (such as

genes trasferred from fungi) makes a duckweed or duckweed like plant that doubles volume every 16-24 hours that spontanteously turns to liquid when harvested.

g, like IQ genetics BDNF has numerous SNP versions, creating a completely new BDNF SNP could be tested at rodents and marmosets for greater cognitive

ability, then this SNP variant of the BDNF gene made into a reversible human gene therapy, then upon further improvement is made an intelligence enhancing part of the human germline at all homo sapiens, that is people.

It is pretty simple to think of, ut it might have a longevity effect: Besides pineal chemicals that

effect circadian rhythyms there are other chemicals that effect circadian rhythms (irisin), these could be tested on mice to see if they have a longevization effect noting the 20% longevization from melatonin supplementation at rodents.

a variety of species may have different circadian rhythm adjustor chemicals, which may be with or without any circardian effect on mammals like humans, these circadian rhythm adjustor chemicals could be tested as longeveity drugs.

The first human clock mutation was identified in an extended Utah family by Chris Jones, and genetically

characterized by Ying-Hui Fu and Louis Ptacek. Affected individuals are extreme 'morning larks' with 4 hour advanced sleep and other rhythms. This form of Familial Advanced Sleep Phase is caused by a single amino acid change, S662→G, in the human PER2 protein

are there fungi with unusual circadian rhythms? like different

spans, they could try
these novel .5-1000 hour
circadian rhythm
chemicals out on c
elegans and yeast to find
out if any of them
lengevize.

circadian rhythm chemicals in 400 year lifespan tortoises that are not in mammals are another possible place for longevizing chemicals to be found at.

I read that banana plants are 60% anologous gnetically to the human genome, nad plants have circadian rhythms. Making the circadian and ultradian rhythm chemicals (like proteins, possibly others) that plants make then feeding them to C elegans could find longevization chemicals.

Also, I read two things, one is that the difference between a perennial plant and annual plant can be as few as three genes (the internet), and then there is the other different area of how a plant on a certain light schedule can be made to be perennial or annual, it is very simplistic, but feeding c elegans perennial proteins could have a longevity effect.

a better version of a circadian rhythm gene could have the opposite effect of shift work, possibly reducing cardiocascular events; the very daytime version could be tested at atherosclerotic mice to see if it reduces cardiovascular events, this could be a beneficial improved gene to place at the human germline as it confers better than well "very day shift" effects.

saffron vision

gratitude journal discussion with Bob,

genetic algorithm wells30%-300% better effectiveness based on helicopter rotor beams and wind-power rotors (300%)

perhaps people would be waterborne illness resistant if their stomachs prouced enzymes that denature, zap, or otherwise neutralize proteins and microorganisms. Sources of these illness resistance chemicals could alsoready be at high concentration in other species, then gene therapy used to make them to be produced at

homo sapiens. Vultures, hyenas, raccoons, crows could also be species that sustain their health over decades even though they eat rotten food; the technology here is that they could test detrivore/omnivores to find out if they have have stomach or gi tract enzymes, such as proteolytic enzymes that kill bacteria, perhaps cyst forms, as well as

denature (make harmlesss) bacterial toxins. The bacteria/virus/cyst terminating enzymes then become water purification addititives (10 mg/gallon), as well as can be made a beneficial part of the human germline.

Wikipedia describes how proteolytic enzymes have been bred and

engineered from bacteria. These biologically produced proteolytic enzymbes could have a big new wellness side branch, a proteolytic protein and spore denaturing material where a droplet placed in a gallon of water sterilizes the water. The protein then denatures at human stomach pH to be harmless and

sensationless to humans. So, as a n example, you could just get 1-20 gallons of pond water, a 1-20 drops, wait 7-20 minutes (analogous to cold water "laundry detergent" proteolytic enzymes duration of action) then drink the water. "laundry detergent" proteases are only about \$16-20/kg at alibaba, suggesting a new custom version that

produces potable water could be, at 10 mg/gallon , 2c a gram is just two one hundredths of one cent to purify a gallon of water. As described these would be new bred/engineered proteolytic enzymes with an empahsis on sterilizing water and making it potable. It is beneficial to develop a proteolytic as well as bacteriolytic virolytic and

sporolytic protein based enzyme that is producible at the stomach or also human GI tract as a gene therapy. This would cause untreated water to approach much fuller potability when drunk by a human being and benefits people.

Noting Dave Pearce'
Hedonistic Imperative
and Abolitionist Manifesto
there is a strong basis for

genetically engineering all organisms with neurons to make GI tract proteolytic enzymes that make water potable for every species with neurons, as these all benefit from increased wellness.

biologically based sources of laundry detergent enzymes as water sterilants, either, amazingly, at the human GI tract, or as a golden rice/golden wheat/golden corn ingredient.

quats with thiosulfate, .0005% of a quat sterilizes water, then thiosulfate or some other (ph buffer)thing denatures quat, very high efficiency water sterilization; there could be a particular molecule

quat where stomach acid defunctionalizes the quat, making drinking quat-sterilized water harmless

Bow head whales live more than 200 years. thinking about the possibility that bowhead whales might have different atherosclerosis, of some form that permits diving blood pressure effects,

repeatedly, that could be thought of as figuring out puff and compress at bowhead whale vasculature, does it preclude cardiovascular plaque break-off and CHD, if so, what about bowhead whale CHD makes for the wider latitude greater survivavability vasculature. This could possibly be made into a gene therapy for humans

to have, possibly along with just less or no atherosclerosis, but if if atherosclerosis were to occur it would be the bowhead whale kind.

Tortoises (400 year lifespan) and bowhead whales (over 200 year lifespan) might get pneumonia, at up to 400+ years, how do these organisms

CPP to lungs from circulatory system brings anti-pneumonia drugs, and possibly mucolytics preferentially to lung tissue,

I think I read that some nonhuman organisms that maintain the same mate decline if their partner organism ceases living, trace this to any of

100 different neurotransmitters and possibly even EEG effects, then come up with a **better than well** and partnered neutrotransmitter booster drug to test as a longevity technology to see if it causes greater longevity There is some kind of thing where mountain and prairie voles partner up or do not partner up,

but can interbreed, measure to see if they have differences in survival after partner nonaliveness; if they do, then figure out the difference in the longer lived variety to find out the mechanisms of precluding partner mediated deleterious lifespan effects, and find the biochemistry of better than partnered longevity effects.

LKM512 yogurt is published at about 2 studies as causing 80-90% lifespan increase in mice; give LKM512 yogurt to atherosclerotic mice to see if it causes greater longevity even with a non-cancer atherosclerotic mouse model

there is a DNA methylation thing called

an epigenetic clock, I think may others must have alreaddy considered editing this clock as a way to increase lifespan. could the corpse of a superenteneration, 99.99999% of the cytes as which, or more are still fully functional, extend or refute the methylation clock? Or find the places on it it, the actual tissues, that matter (neurons, vasculature)

its not cancer, its point of specificity tissue disregulation (hints of epigenetic clock going amiss at .000000000001% of tissue causing say atherosclerosis

genetically engineered-in anti-ischemia harm peptides as testable longevity drugs at atherosclerotic mice

mouse dorm n=40k, what causes a bruise to be scavenged successfully away, rather than treated as a body interior multicm dead tissue that could float out and cause strokes effect?

do the genetics of least bruising have any relation to cardiovascular wellness genetics? IS there any relation to longevity effects? Least bruising of human MZ twins correlates with what wellness benefit?

volunteer process, ultrasonic zapper bruises 1 cm tissue at 100k human volunteers with parents ages 70 on up. Correlate parental survival and lifespan with child non bruisability, advantage, basically harmless to the 40-50

year olds at experiment.

Pills that stop bruising may be longevizing, there may be a reduction of "microetherosclerotic" effects benefit as well. "In one study, patients suffering from pigmented purpura — those deep purple bruises that get progressively worse that took 50 mg of rutin (oral rutoside) two times per day along with 500

mg of Vitamin C twice a day were completely healed of their bruising within just four weeks.", "hesperidin can dramatically reduce bruising and strengthen your capillaries"

60 second reactive stent, 20 seconds better

f=MA microsurgery, 2mm golfball core elastics can do 1.8 mm suturing at

90% mechanical engineering efficiency.

just explore the HOX and other state space to find completely well nonhuman primates with 2-3x the volume, span, and reach, of coronary arteries as regular primates, verify they are almost immune to lethal cardiovascular events from network and path

duplication at the corononary vasculature.

should they just put in two hearts? right handed heart people apoe e immunue to ath at germline

Ok, so the source of tissue culture can be exceptionally well tissue, it is even possible that exceptionally well tissue

with its epigenetic meythylation clock reset to age 1 could be the basis of transplant tissue.

One way to tell excpetionally well tissue culture tisuue is to use the velvet plate cuplication process; a tissue culutre plate with say 1 billion cyctes at it (vascular epithelium, or better, stem cells) is velvet copied, then the

copy frozen (or quiecently maintained), then at the 1 billion cyctes on the source plate actual particular to the human physiological stressors are introduced. For example, blood plasma concentrate from an elederly person might contain the things senolytics get rid of, as well as diverse but nonoptimal immunology, like immune

sensititizations; other challenges like hypoxia(ischemia) that would terminate 90% of cyctes, and 99th percentile of cholesteric plaque adhesion. So after one of the velvet prints has 99.9999 mortality, the physical locations of the million cells (stem cells, or differentiateds) that surviced all that are known, then tissue

culture is accomplished from just those million cells most likely to thrive and survive found via the physical mapping to the velvet copy base. They would then verify that tissue culture from these 1 in a million best cells actually caused better survival and function at implanted tissue culture constructs, like vascular material, cardiac repair stem cells, and even

neural tissue grafts (treating mental things). If it is possible to grind away an atherosclerotic plaque, then spackle the area with the 1 in a million perkiest spackle cytes, then overlay them with a planar tissue made from the 1 in a million perkiest planar tissue cytes, then the repairs addressing cardiovascular disease are likely to be better.

As a possible longevity wellness technology it could be possible to find the "weakest stuff" at a person's personal tissue sample, then cure it, then deliver the cure to the entire person's living body for greater longevity from strengtheninging what otherwise would have been the weakest parts.

Culture the 99.999th percentile of feeble, (say resistance to ILGF-1, or nonresponsiveness to Nitric oxide, or then cure it, then administer the cure to the actual human where 99.999& of the cells are doing better

Some people, when they exert themselves, experieince cardiovascular events, even while exercise has

preventative effects on CHD, implant notices when the person's physical exertion (and associated things like blood oxygen levels and blood pressure) goes into 1 per 10,000 likeliness of causing cardiovascular event then the implant releases instant destresing, blood pressure reducing, respiratory function optimizing drugs, this is

then lifesaving per some number of automatic activations; Opiate peptides might destress, vagus nerve agents, if there are any, might deepen breathing, other peptides could reduce blood pressure. So this brings up the research question, how many minutes before a heart attack is a heart attack preventable? Do you have to get there 5

minutes early or 30 seconds early? Do sensations radiating along one arm precede a reversible process, or do they indicate an actual heart attack process? 5 minutes early suggests a wearable, like a smartwatch, that magnetically stirs up and opens chemical reservoirs (drug depots) at an injection site beneath it.

The internet says "The most dangerous times for heart attack and for all kinds of cardiovascular emergency — including sudden cardiac death, rupture or aneurysm of the aorta, pulmonary embolism and stroke are the morning and during the last phase of sleep. A group from Harvard estimated this risk and evaluated that

on average, the extra risk of having a myocardial infarction, or heart attack, between 6 a.m. and noon is about 40%. But if you calculate only the first three hours after waking, this relative risk is threefold." That suggests that the smart watch that activates drug depots to prevent heart attacks might actually find itself working about 1/2 the time while the

person is unconscious in the morning before waking.

One advantage to a magnetic drug depot smartwatch that measures physiologogy and dispenses drugs may be that it addresses the (I pereceive I read) 1/3-1/2 of peopel who have a first heart attack without any medical warning. I do not know what medical warning means, but I get

the feeling that it means people who feel healthy, without angina, without prior cardiovascular surgery (atherosclerosis), Have a first and lethal heart attack. Family history could be a guide to whether these people would do well to wear a heart attack preventing watch above a certain age even with a normal physician's physical. Also, if you omit ever

needing it, it omits ever getting used.

"wiggle melatonin" could reduce heart attacks. Noting the connection between circadian rhythms and heart attacks (quoted) it could be that a multimodal distribution of melatonin taken before sleep, rather than a single main dose of melatonin could cause the first 4 hours

(highest heart attack risk period) to have some quantitative difference in the likeliness of having a heart attack. Also, there is now a melatonoinsimilar-molecule antidepressant drug they could screen to see if it, or, it at certain dosing schedules, reduces risk of heart attack.

There are also nonpineal human circadian rhythm mechanisms and drugs. I

read about irisin, which effects circadian rhythms, perhaps there could be a heart attack preventing nonpineal circadian rhythm drug.

Epithalon is a pineal hormone, and it is published that humans (over 70?) on epithalon are twice as likely to live six years longer as those not on epithalon. Epithalon could prevent

heart attacks.

17%lifespan increase tropical rainforest sounds during heart attack sleep am, measure reduction; stay alsleep massaging bed during am risk period.

"greater than 50 percent more heart attacks in winter months than in summer months, and it's mostly about stress",

combine that with 40% more AM heart attacks and that suggests that studying the physiology of people during summer afternoons could represent a mere 10% risk. So, using rodents, or another heart attack model experimental mammal, inject the rodents with oneprevious-heart attack human AM winter blood chemicals, and human

PM summer blood chemicals (from one previous heart attack paersons), find out if there are specific circulating factors in human blood/plasma that cause heart attacks in rodents or other lab mammals, interestingly there is the possibility of concentrating the plasma chemicals 10 or 100:1 to get a stronger heart attack production signal.

Immunizing aaginst any of these chemicals, if novel, could reduce heart attacks in humans.

if there are specific circulating factors (AM winter) it is possible liver enzymes naturally get rid of them, upregulating those liver enzymes with a pill then reduces the AM winter chemicals, reducing risk of heart attack.

tissue culture staples and roof shingles, tarps oooh gross, or vasculature advantage(?), the tomographed skin tag or wart, possibly from the persons own tissue culture.

Glaxosmithkline: headache reliever pill. Some people chew pills, having planes of

cleavage so that the pill fractures all over the place, but always (usually) at a micrometer thin delicious flavor plane turns a yucky chewed NSAID into a tolerably flavored or even flavor treat headache relief pill that works much faster. The flavor cleavage planes could also have hygroscopic (pulls water from surroundings) micrometer coating to

form the rapidest micrometer slurry.
Better to use a flavor enhanced liquicap though if that is faster at pain relief.

Dwelling air warming, cooling, and transport could be improved as to its effect on indorr air quality. Indoor air quality is likely linked to a reduction in risk of disease possibly heart

disease, there is a chance improving indoor air quality reduces risk of heart attack. Noting first four hours of the day (and winter) are greatest risk for heart attacks it is possible indoor air quality duing that time makes a bigger difference. Is there a benefit to producing summer evening psychrometrics (humidity/temp) during winter AM? It is a broad

slice, up at 6 am, at work at 10:00, but suggests indoor air quality at communting vehicles could matter a lot, At the dwelling, just running the fan through the air filter 2-4x as much between 5:00 am and 8:00 am could be beneficial,

Indoor air quality and psychrometrics might be particularly testable at nursing homes. Just

modifying the settings to a different variety of "normal" (summer evening) at 100K of aggregate residential facility could show a strong data trend rapidly.

There is a chance that summer evenings are actually good for cardiovascularly ill people, rather than it just being ab absence of AM events during winter. Find

those beneficial things, then trry them out all year, one possibility is pollen, another is antidepressant long days of summer; better data would be better, I associate winter with rain, others associate it with snow, I perceive places it snows more, the people who live there live longer; rainy winter season from physical rain might be more

deleterious than ice season. Psychrometric testing opportunitity.

well lit dwellings summer circadian during winter could be tested to see if they reduce cadrdiovascular events

(circadian rhythms of summer) gene therapy or daily responsive but once annual or less often depot melatonin

injecttion could reduce cardiovascular disease. One set of numbers is 50% less heart attacks during summer, and also melatonin or a nother circadian rhythym drug could preclude first 4 hours peri-rising (40%) heart attack risk factor. with a one office visit injection to get the multiyear depot injection/implant

Is hibernation or things like estivation a source of calm and possibly sleep, that might work on completely different neurotransmitters than GABA? If so then this could produce beneficial new harmless sedatives and anti-anxiety drugs. They could take a rodent that does true hibernation, and connect it via parabiosis to a non hibernatining rodent to

see if the non hibernatining rodent calmed down, was sedated or also had the brain scan of lack of anxiety. One possibility is the the hibernatining squirrel/rat or beaver combination, another possibilility is testing the groundhog "While hibernation has long been studied in rodents (namely ground squirrels) no primate or

tropical mammal was known to hibernate until the discovery of hibernation in the fattailed dwarf lemur of Madagascar, which hibernates in tree holes for seven months of the year."

circulatory factors of hibernating animals do things to alert animals, "Hibernation induction trigger (HIT) is somewhat

of a misnomer. Although research in the 1990s hinted at the ability to induce torpor in animals by injection of blood taken from a hibernating animal, further research has been unable to reproduce this phenomenon. Despite the inability to induce torpor, there are substances in the blood of hibernators that can lend protection to organs for possible transplant.
Researchers were able to prolong the life of an isolated pig's heart with an HIT.[36] This may have potentially important implications for organ transplant,"

smartwatch magnetically releases hibernation induction trigger https://www.annalsthoracicsurgery.org/article/S000 3-4975(97)00631-0/

fulltext "HIT" (or maintenance) chemicals if it detects 1 per 1000 likeliness of cardiovascular event that hour, interestingly it may be possible to combine this benefit with a mild wake-up chmical so the person is able to do something other than pass out in response. bodyside and well as brainside varied chemicalcs could also

contribute to heightening surviviving and normalcy after cardiovascular event; bodyside only "HIT" (Hibernation induction trigger (HIT) obtained from serum of certain winter-hibernating mammals, such as woodchucks, 13-lined ground squirrels, brown cave bats, and black bears, can induce hibernation in these animals, even when

summer active) At humans, with a smartwatch drug depot this could be continuouous low level medication for those projected to be at cardiovascular risk without impairing mental function. HIT studies are from 1997 and could be updated to see if it is possible to make RNA drugs and peptides that do the same things as

the HIT chemicals, thought at the time to be opiods (like opiate peptides)

As a technologogy to get rid of heart attacks, HIT chemicals could be made to circulate at the body during the first 4 hours (most lethal), as well as during winter. Perhaps bodyside only would do it, leaving people's minds fully functional in the AM.

Also, the article mentions opiate receptors as HIT life-preserving drug receptors. I read there are more than 100 neurotransmitters, so perhaps there are other non opioid HIT chemicals that can be found with serum between lab mammals experiments.

Also, they found a primate (nearer human biochemistry, mRNA) the

fat-tailed dwarf lemur that hibernates up to 7 months a year, along with opiate HIT, these lemurs may have other serum chemical systems that could benefit humans, particularly at redicing cardiovascular events or making them less serious.

Along with the article URL, that concentrates on treatmentless

ischemic hearts having about about 30% their original capacity on survival, and 15 minute pretreated (bear serum or opiates) hearts having 69-80% original capacity this brings up the possibility of using HIT hibernation chemicals to measurably reduce the effects of strokes or even routine surgical anesthesia on mental functioning.

Under hibernation, Wikipedia mentions sharks can go three hours of ischemia, so shark serum could also be tested on cardiac and strokelike ischemia to find new drugs that minimize the effects of heart attacks and strokes.

As a possible technological

improvement to the 1997 HIT paper, cell penetrating peptides could concentrate all of the traversal of active drugs (Bear serum simililar chemicals, opiate peptides) to specific organs, for example, heightening concentration at the heart and vasculature, making these drugs more dose efficient and possibly better tolerated.

A one dose approach to a drug that increases the survivability of cardiovascular events (heart attacks) is: tail squiggle gene therapy, photoactive installation just at the heart: Describing that, basically receptors, like opiate receptors have receptive components (one mental reference is g coupled protein receptor swirl

fingers) as well as a base area (before the fingers) some authors call the tail that does not directly glom the the thing of interest. This tail area can however have a custom peptide or protein made, that gloms to it, that causes the actual receptor part (fingers) to be more or less sensistive. So engineering a peptide that causes heart opiate

receptors (or bear hibernation serum chemical receptors) to be unusually easy to activate and causes them to stay activated could cause continuous "on" status just from normal circulating levels of endogenous (natural) chemicals as they are primed to prefer to be on. One way to get the tails to have the perma-on peptide attached to

them, or, perhaps more optimally, just be developed from stem cells with the "easy on" protein sequence and conformation conformation part of their makeup is is phototherapy gene therapy: Using published methods gene therapy only takes (does its thing) where tissues are illuminated, and at a person, cofocal lighting

lights up the heart for the duration of the gene therapy installation. That causes the opiate receptors (or also bear hibernation heart chemical survival receptors) to be the only things at the body illuminated/eligible, at that particular treatment, for updating with the new genetic form.

Hibernating Arctic ground

squirrels

female <u>polar-bears</u> go into hibernation during the cold winter months in order to give birth to their offspring.

What restarts a cardiovascular event heart? They could put that chamical at the magnetic stirred drug depot smart watch that prevents and responds to

cardiovascular events.

circulating null epinephirine with enzymatically cleavable null part then turns to nor epinepherine restarting a heart if the magnetic depot releases a bunch of the enzyme.

radical: EM quarter squeeze a supercapacitor to make a super big current pulse; sequential

reaction, 2 supercapcitors, the first em squeezes the second, the second supercapacitor when squeezed has a much accellerated or rather concentratated current pulse. pro IC technology MEMS like size defibribillator,

I have not hard of a defibrillator that installs custom, "ultra high

survival" waveforms, perhaps the MEMs duocapacitor could do this as well.

"presented with the shockable rhythms of ventricular tachycardia or ventricular fibrillation (better outcomes)"

People at cardiovascular risk could have their IoT lightbulbs watch them for cardiovascular events. at

Quora one person writes, "The most treatable situation is where the event is witnessed, 911 activated and bystander CPR provided. In those cases, we get about 80% to the hospital alive and about 55-60% discharged from the hospital in normal or near-normal condition."

That suggests that volunteers trained in CPR

at various kinds of dwelling buildings could be IoT (Internet of Things) called to suddenly go to a strange apartment with freshly (IoT) unlocked doors to rescue someone before the paramedics can get there. I'd do it, that is I would get CPR certified, then let my neighbor's computer call me to their assistance to do interim CPR before the

professionals arrived.

The cable box anti-heart attack drug flinger and pro-survival taser, expanded to the in commuter vehicle version: I think it is possible that at halfbakery.com I posted a technology about how the home media center (20th century words: cable box) could have a camera that watched the

people on the couch in front of them, using things like digital themography of the face to see how their health was. It could spot if they were having a heart attack and then the cable box could discharge (fling) eentsy ninjashuriken drug injecting at the person's neck to deliver lifesaving chemicals (drugs), possibly like the ones

EMTs (emergency medical technicians) give to people they are reviving, or things like DMSO(drug delivery)aspirin splashballs, Something better than tissue plasminogen activator, and, having read more recently, possibly the the chemicals at hibernating animals (hibernating bear blood serum chemicals, opiate peptides) that

cause (30% functional ->80 functional) greater function survival in heartattack hearts. The invehicle (car) version makes sense as well. A very simple modification to that makes it work better, put it at the dashboard of the vehicle. Airbags are already common, and heart attacks in motor vehicles on the driver's side (and with oblique shuriken

aim, passenger side) could possibly be very near the lifesaving rescue use numbers of collision airbags. The numbers are very approximate, but 2020 800K heart attacks, compared with 30.2K (2010) lethal vehicle acidents, (800k/24 hours, 33K heart attacks during a period of driving 1 hour each day. Note that the 33k heart attacks is

spread across the entire population of drivers. If the motor vehicle had an Anti-Heart Attack Drug Shuriken Flinger (AHADSF) only at those over 49 (actually math of a graph with crossing lines could find the optimal age to have an anti-heart attack drug shuriken flinger (AHADSF) installed at a vehicle) then the person could just get that as a

standard option on their motor vehicle when they were getting it >49.

Also, there is an opportunity for higher quality of diagnostics than "having a heart attack", for example, if the radiating one arm sensations that may(?) precede a heart attack can be detected with digital thermography of the hand and neck, then

5-15 minutes of advance notice is produced to fling the drug shuriken ahead of time. Similarly there are optical (laser) only ways to read blood pressure from the eye, and it is just possible that photonics of the face, or through-skull photonics could detect angina. Benefitting this technology is autodriving vehicle technology (driverless cars) which

could take over for a person who is on the verge of a cardiovascular event but does not know it, or a person having a cardiovascular event.

One thing an in-vehicle heart attack response technology can do is do a good job imitating an EMT (emergency medical technician), with technology at the steering column able to

push out a contact surface that can do CPR compressions, and another item that extends (or shoots, perhaps like a taser) from the steering column that does electrical defibrillation.

https:// www.everydayhealth.com/ atrial-fibrillation/ noninvasive-vagus-nervestimulation-shown-to-

reduce-atrial-fibrillationin-post-operativepatients/ "Electrical stimulation of the ear and the vagus nerve that sits on the surface there has a calming effect, in that we are stimulating the largest nerve of the parasympathetic nervous system [part of the autonomic nervous system] and hence the corresponding antagonists," Martin

Andreas, MD, lead author and an associate professor in the department of cardiac surgery for the Medical University of Vienna, said in a press release.

For the study, researchers divided 40 postoperative patients into two groups: one-half received LLTS while the rest were given a placebo. The patients who received LLTS for

five days post-surgery had a significantly lower incidence of developing atrial fibrillation — 4 patients out of 20, compared with 11 out of 20 in the control group.

"The autonomous nervous system controls the heart rate and influences the threshold for cardiac arrhythmias," Dr. Andreas said. After surgery, the body is under stress, dealing with

inflammatory reactions and oxidative stress, and the sympathetic nervous system — the body's fight or flight response — gets activated.

This increases the likelihood of developing atrial fibrillation, which affects 1 out of 3 patients who undergo open heart surgery and can lead to further complications.

"Patients who had an

episode of atrial fibrillation are more likely to develop another episode and are frequently kept on anticoagulant medication, which increases the bleeding risk and may increase long-term complications," Andreas said.

A previous <u>study</u>, <u>published in September</u> <u>2017 in JACC: Clinical</u> <u>Electrophysiology</u>, found

that <u>vagus nerve</u> stimulation had a positive effect on incidences of atrial fibrillation postsurgery, but researchers used an invasive device that was implanted inside patients' bodies. This study shows that a noninvasive option could make a similar positive effect with fewer potential complications." As an adjunct that reduces death from CVD

vagus earlobe or throat stimulation could be based on a wearable battery pack, with a wireless charging pad on bed. Other published things online have descrbibed how people are at greatest risk of heart attack during the first 4 hour hours or morning (approximately, that includes about an hour of sleeping), it could be that vagus stimulation

could have anti-heart attack beneficial AM effects. Similiarly vagus stimulation could reduce cardiovascular risk during Winter (50% greater risk) as well. Perhpas the vagus output of normal well people during summer evenings could be prompted to be produced with a vagal stimulator at the unwell and this could contribute to fewer heart attacks.

I perceive I read some people are not sure if they have had a heart attack or not, perhaps a medical diganostic chewing gum with antibodies that change color could tell people if they are having a cardiovascular event that immediate attention would benefit. The general instructions might go like this: "You

have a family hisotry of heart disease and various biomarkers suggesting cardiovascular risk. you feel funny, chew this gum. If it changes color immediately seek medical assistance even if you feel fine." This is a actually very affordable, compared to a (color/antibody) \$1 pregnancy test, 1 piece of gum a month (the worried well) for three

decades is only \$360 for a person to test themselves at will if say their hand feels funny or if they get dizzy.

Longevity technology,
This one is a longshot. I
read that at different
times of the human
menstrual cycle women
are much better at
smelling odors than other
times. I also read that the

abilitity to discern odors is predictive of whether a person will be alive or not. "A 2019 study published in the Annals of Internal Medicine found a link between a poor sense of smell and mortality. Researchers from Michigan State University analyzed data of over 2000 older adults, between the ages of 71 and 82. As part of the study, participants were

asked to identify 12 common scents such as cinnamon, gasoline, and smoke. Researchers then tracked each participants over the course of 13 years. As they found, people who identified less than eight different smells were 46 percent more likely to die 10 years laetr. So researchers concluded that a poorer sense of smell could predict

death.", so drawing plasma from young women at their monthly height of odor detecting ability, then administering the plasma fractions as drugs to elderly mice could find out a longevization diference between most effective smelling times of the month plasma administred-as-drug and least effective smelling times of the month

plasma-administered-asdrug. Then note the chemical differences between the two plasmas with their different longevization abilities (if any), to find the specific plasma chamicals that are causing the mice to live longer. Make synthetic versions and administer these human chemicals (proteins, peptides) to age batched groups of human

volunteers to see if the pro-smell plasma chemicals are longevizing to humans to make a new human longevity drug.

another approach to finding a longevity drug from the human smelling acuity test is to find out the people who could smell just 1 or zero of the scents, and see if their

10 year mortality was above the published 46% for those that smell less than 8 of the samples. If the zero/one smellers are hypermortality-prone then their blood may carry toxic chemicals that when administered to mice cause mortality. The sources (specific plasma proteins) of that chemically transmissable mortality can be found, and then immunizations

to those chemicals produced, and the immunizations tested on mice and humans as longevity drugs.

Another way is to make a longevity drug from supersmeller blood plasma: find the 99.99th percentile of both males and females able to discern different odors, then make blood plasma fractions from a donated 2 pints of blood then

inject mice or rats with the plasma fractions. Noting the 2 pint volume to mouse or rat dose volume ratio One human supersmeller might be able to dose 300 days of rat possible longevization from 1 pint (600 days from 2 pints), or several thousand days of mouse dosing per pint of human plasma.

BDNF gene is IQ (like g) gene, that suggests that completely new humancreated BDNF genes could cause even higher intelligence, perhaps from coding a different amino acid sequence protein. "Brain-derived neurotrophic factor (BDNF), a member of the nerve-growth-factor family, plays an important role in neuronal survival and

development, and it can modulate serotonergic activity. Further, BDNF has been implicated in the expression of personality traits and in cognitive function. We tested the associations between functional BDNF Val66Met genetic variants, and personality trait and intelligence in a cohort of 114 healthy young Chinese females. Subjects with the Val/Val

genotype had a significantly higher mean performance IQ than Val/Met carriers, especially for the Object Assembly subtest. No significant association was demonstrated for the BDNF polymorphism and any of the Tridimensional Personality Questionnaire personality-factor scores, including harm avoidance. These results suggest that genetic

variants of the BDNF gene may play a role in specific cognitive functions, but not in overall intelligence. In contrast to a recent report, however, this polymorphism does not appear to be associated with the neuroticismrelated personality trait." https://selfdecode.com/bl og/article/boostplasticity-with-the-bdnfgene-50/

a brain-computer link that has, additively, the production of greater longevity at the human linked to the computer: Putting a pacemaker on the pineal, or also putting an output modifier on the pineal, could be a straightforward way to produce more optimal amounts of melatononin, at certain times, than the body naturally produces;

this is also true of other pineal/thymic chemicals like epithalon and thymosin. Now of course the person could just take the oral pills, but a neural interface that cause greater longevity and wellness immediately would have a negative risk profile, installing it would actually benefit people. Similarly, antidepressants reduce risk of heart

attack (or perhaps it was heart attack survival) either 20 or 43%, so noting there is an melatononin chemicalsimilar antidepressant, a pineal pacemaker could also be an antidepressant. Use of a neural implant could make living extra pleasuable enough and interesting enough to function like an antidepressant at

decreasing risks of heart disease. Neural implants strongly support people living in simulations.

sometimes thinking about things with higher computational power per milligram than 1 nM process semiconductors running a turing machine I think of the brain, now, groovily, I found out

there is something 1 million times more computationally rich than the human brain on a per mg basis, the amoeba, at quora a person writes, "brain that works in such a way that you need maybe thousands, even a million neurons to outthingk a single amoeba - whatever the amoeba uses for its intelligence" So there is something the size of 1

cyte that does a million neurons amount of computational equivalence. Basing new computers on unicellular organisms, at its crudest, can simply have a swapping out parts and flow cytometry screen a library multitrillion amoeba aspect (10 million yeast/second, 86 billion/24 hours, 14 days to screen a trillion

amoebas, or 24 hours if you have 14 flow cytometers.

I bring this up because, crudely, using amoebas to do computation has technology improvements. Very simple ones, like does an osmotically squinched amoeba contain just 1/3 as much water, but maintains full vitality and computational ability with literally 1/3 as many

atoms, thus takes up 1/3 as much space; obvious things like engineering/breeding/oth er the amoeba to do the most computing with the fewest atoms; engineering/breeding/oth er the amoeba to to be an extremeophile, capable of living on a deliquescent coating (or perfluorocarbon) on a computer chip but doing living computtions

anywhere between subfreezing to 111C. That could provide compatibility with coolprocess logic (optical computing, quantum computers) ranging to 2020AD IC surface temps. Again, that amoebas have about a million times the computational density of neurons suggests value.

Antibodies to stem cell differentiation factors as longevity drugs, glom the circulating "make foam cells"(foam cells are part of atherosclerosis), or block the stem cell differentiation factors that make any [hyperplasia] thing then there is less of it and the stem cells make some other thing.

I apologize to Ben Shairer of Seattle for writing a cuss word in his 7th grade yearbook when I was in 8th grade.